

Applicant : Dzung A. Nguyen et al.
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Attorney's Docket No.: 13854-064001

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REMARKS

Claims 1-24 are currently pending of which claims 10-24 are withdrawn. Claim 1 is currently amended for clarity. Reconsideration of the action mailed December 13, 2006, is requested in light of the foregoing amendments and the following remarks.

The Examiner rejected claims 1-9 under 35 U.S.C. § 112, second paragraph, as indefinite. The Examiner rejected claims 1-9 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 1,727,932 (hereinafter "Medved"). Applicant respectfully traverses the rejections.

Section 112 Rejections

Claims 1-9 stand rejected as indefinite. Applicant respectfully traverses the rejection.

Specifically, the Examiner states that claim 1 lacks structure to support the functional language of "where the distance between the base and the conical coil inductor is selected such that parasitic coupling paths between the conical coil inductor and the base are substantially minimized." The examiner states that the term "selection" should be clarified. Applicant respectfully disagrees.

Claim 1, as amended, recites a conical coil inductor that is supported by at least one support over a base by a predetermined distance. Thus, there is clearly structure for providing the recited predetermined distance between the conical coil inductor and the base, namely, the recited support. Additionally, the claim also recites that "the predetermined distance between the base and the conical coil inductor is selected such that parasitic coupling paths between the conical coil inductor and the base are substantially minimized." Thus, the term "selection" clearly refers to a selection of the predetermined distance between the conical coil and the base in the claimed broadband inductor assembly. Again, the claim recites a support for providing the predetermined distance. Applicant respectfully submits that claim 1 is clear as to the selection of a predetermined distance and furthermore that the claimed support provides the structure for providing the selected distance.

The Examiner further rejects claim 1 as indefinite for including the term "substantially" which the Examiner states is a relative term. Applicant respectfully disagrees. The term "substantially" is not indefinite. Substantially is the adverb form of substantial. The definition

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of substantial in Merriam-Webster's Online Dictionary includes "being largely but not wholly that which is specified." Additionally, Webster's Online Dictionary defines substantially as "to a great extent or degree." Thus, one with ordinary skill in the art would know what it means for parasitic coupling paths to be "substantially minimized".

Additionally, MPEP 2173.05(d), states "the term 'substantially' is often used in conjunction with another term to describe a particular characteristic of the claimed invention." MPEP 2173.05(d) further cites *Andrew Corp. v. Gabriel Electronics*, 847 F.2d 819, 6 USPQ2d 2010 (Fed. Cir. 1988), stating that the subject claim limitation "which produces substantially equal E and H plane illumination patterns" was definite because "one of ordinary skill in the art would know what was meant by 'substantially equal'". Therefore, the term substantially in claim 1 is definite. Applicant respectfully submits that claim 1 is in compliance with section 112, second paragraph.

Section 103 Rejections

Claim 1 stands rejected over Medved. Applicant respectfully traverses the rejection.

Claim 1, as amended, is directed to a broadband inductor assembly that includes a conical coil inductor, a base, and at least one support. The support provides support for the conical coil inductor raised above the base by a predetermined distance greater than or equal to the radius of the broad end of the conical coil inductor. The distance between the base and the conical coil inductor is selected such that the parasitic coupling paths between the conical coil inductor and the base are substantially minimized over a broadband frequency spectrum.

Medved discloses a radio coil assembly for use with an early vacuum tube radio system. Two conical coils are positioned relative to each other such that the spacing between the coils can be adjusted. See FIGS. 2-3; page 2 lines 41-49; and page 2, lines 120-127. Varying the spacing between the coils allows the radio coil to be used to consistently receive particular radio frequencies according to the distance set between the coils. See page 1, lines 15-26.

While the radio coil in Medved is shown as elevated by a shaft, Medved does not disclose or suggest that the radio coil is elevated by any particular or minimum amount for the purpose of minimizing parasitic coupling paths generated between the radio coil and a base. Instead, the support shaft in Medved provides for a spacing adjustment apparatus for varying the spacing

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between the pair of conical coils forming the radio coil. Thus, the object of the shaft in Medved is to provide a structure to allow the spacing between the two conical coils to be adjusted.

Additionally, Medved does not disclose or suggest minimizing parasitic coupling paths over a broadband frequency spectrum. Medved's radio coil is not a broadband device, but instead operates over particular range of broadcast radio frequencies. At the time of Medved, broadband devices did not exist.

Medved does not disclose or suggest any particular shaft height or any reason to select any particular shaft height. There is no suggestion in Medved that the distance between the conical coils and the base matters with respect to the particular purpose of improving performance of the conical coils. In contrast, claimed broadband inductor assembly includes a distance selected to provide the particular function of minimizing parasitic coupling paths over a broadband frequency spectrum.

The Examiner states that the selection of the distance between the base and the conical coil would be an obvious design consideration. However, parasitic coupling over a broadband frequency spectrum would not be a design consideration at the time of Medved's invention. Parasitic coupling is a factor in modern circuitry due in part to miniaturization of components and increased frequencies. The parasitic components often limit the operational band of a component. See page 1, lines 16-25 of the specification. For example, limit the operational frequencies used by an inductor to prevent the parasitic coupling with other circuit components to cause the inductor to become capacitive. See page 1, lines 10-15 of the specification. By minimizing the parasitic coupling, components can operate in a larger frequency band. At the time of Medved, however, parasitic effects would not have been considered due to the lack of miniaturized or broadband components.

Applicant respectfully submits that claim 1, as well as claims 2-9, which depend from claim 1, are in condition for allowance.

Applicant requests that all pending claims be allowed.

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Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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